Leominster Retirement System



Actuarial Valuation
January 1, 2006

STONE CONSULTING, INC.

January 31, 2007

Leominster Retirement Board City Hall, Room 15 25 West Street Leominster, MA 01453

Dear Leominster Retirement Board:

31 Marlyn Road Medfield, MA 02052 (508) 359-9600 (Telephone) (508) 359-0190 (Facsimile) Lstone@stoneconsult.com

Stone Consulting, Inc. has performed a January 1, 2006 actuarial valuation of the Leominster Contributory Retirement System. This valuation and report was prepared using generally accepted actuarial principles and practices and meets the parameters set by the Governmental Accounting Standards Board Statement (GASB) No. 25. To the best of our knowledge, this report is complete and accurate, and the assumptions used represent our best estimate of anticipated experience of the system.

As part of performing the valuation, Stone Consulting, Inc. was furnished member data by the Leominster Contributory Retirement System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary. In addition, the administrative staff furnished financial statements that were not audited by the actuary or by the plan's auditors.

The funding objective of the plan is to fully fund the system while attempting to maintain a stable contribution amount for the upcoming fiscal year that is consistent with prior funding schedules. This funding objective is being met.

We anticipate over time that the contribution level to decrease as a percentage of payroll. The contribution rate is determined by adding the normal cost plus an amortization of the unfunded actuarial accrued liability. The normal cost is expected to remain at a level percentage of payroll. The number of years of the amortization and/or the rate of increase of the amortization is adjusted to maintain a stable contribution level for the upcoming fiscal year. The length of the funding schedule contained in this actuarial valuation report is nine years, two years less than the prior January 1, 2004 actuarial valuation with a 2.5% amortization. The amortization increase cannot exceed 4.5% annually. The maximum length of the amortization is until Fiscal 2028. These limits are contained in Chapter 32 of the Massachusetts General Laws.

The contribution amount for Fiscal Year 2007 is \$4,983,069 that is \$192,221 more than the anticipated contribution amount from the prior funding schedule. PERAC and GASB guidelines indicate that actuarial valuations should be conducted at least every other year. The Leominster Contributory Retirement Board conducted their previous actuarial valuation effective January 1, 2004. This satisfies these guidelines.

We are pleased to present the results of this valuation. If the Retirement Board has any questions on the content of this report, we would be glad to respond.

Respectfully submitted,

STONE CONSULTING, INC.

Laure B. Stone

Actuaries for the Plan

Lawrence B. Stone

Member, American Academy of Actuaries



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SECTION I: MANAGEMENT SUMMARY

INTRODUCTION

This report presents the results of the actuarial valuation of the Leominster Retirement System. The valuation was performed at the request of the Retirement Board as of January 1, 2006 for the purpose of determining the contribution requirements for Fiscal Year 2007 and beyond. The contribution requirements are based on:

- The financial condition of the system as of December 31, 2005;
- The benefit provisions of M.G.L. Chapter 32;
- The demographics of members in the system (i.e., active and inactive participants, retirees and beneficiaries as of January 1, 2006);
- · Economic assumptions regarding salary increases and investment earnings; and
- Other actuarial assumptions (i.e., terminations, retirement, death, etc.)

JANUARY 1, 2006 VALUATION SUMMARY

	January 1, 2006	January 1, 2004	Change
Contribution Fiscal 2007	\$4,983,069	\$4,790,848	+ \$192,221
Funding Schedule Length	9 years	11 years	-2 years
Amortization Increase	2.5%	2.5%	0
Funding Ratio	74%	67%	+ 7.0%
Interest Rate Assumption	8.00%	8.00%	0
Salary Increase Rate Assumption	4.75%	4.75%	0



- The Fiscal Year 2007 contribution is \$192,221 more than the planned 2007 contribution. The System experienced a significant \$2.0 million asset gain for calendar years 2004 and 2005. The annual rate of return was 9.45% versus the assumption of 8.00%.
- The market value of assets effective January 1, 2004 was \$62.2 million; whereas the market value of assets effective January 1, 2006 was \$75.1 million. This is an increase of 20.8%. The Retirement System's asset portfolio, effective December 31, 2005 was invested approximately 68% in equities and alternative investments and 32% from fixed income and cash. The aggressive target asset mix allows for the continued use of the 8.00% interest rate assumption despite lower overall expected return from equities and fixed income investments. It should be noted that a higher equity mix can result in higher asset return volatility that could adversely affect the stability of the contribution level. Given the relatively well-funded position of the System, there should be enough flexibility to maintain a stable contribution level.
- New annuity rates were recently enacted. In general, this will prospectively reduce the actuarial gains that the system had been receiving when members select Option C. The change in the annuity rates not only affects the conversion from Option A to Option C it also affects the calculation of certain accidental disability benefits. Individuals hired prior to 1987 are eligible for up to 100% of compensation if they retire under the accidental disability provisions. The benefit is calculated by adding 72% of pay to the annuity based on the accumulated contributions. The new annuity rates significantly increase the annuity amounts and therefore increase the accidental disability benefits for these individuals. There was an increase of \$130,000 attributable to the Present Value of Future Benefits as a result of this annuity rate change.
- The funding level of the Leominster Retirement System improved from 67% for the 2004 valuation to 74% for the 2006 valuation. The funding level is estimated to be in the third quartile of Massachusetts' Contributory Retirement Systems.



- The results of the January 1, 2006 valuation were used to calculate the contribution starting in Fiscal 2007. In prior valuations, the results were rolled-up eighteen months. If this was done for this valuation, the results would have been first used for Fiscal 2008. The Retirement Board decided that adjusting the funding schedule for Fiscal 2007 would enhance the funded position of the System.
- In consultation with the Retirement Board, it was decided that the asset gain would be used to reduce the contribution level and schedule length. The schedule length is nine (9) years. The maximum length permitted under Chapter 32 of the Massachusetts General Laws is twenty-two (22) years to 2028. The amortization increase of the January 1, 2006 funding schedule is 2.5%. The maximum amortization percentage permitted is 4.5%. The Retirement System's funding level and schedule provides flexibility and cushion to respond to fluctuations in portfolio performance and System losses, if need be.
- The salary increase rate for the current valuation is 4.75%, consistent with the 2004 actuarial valuation. Compensation over the course of the two-year period increased 7.0%. The average annual compensation (compensation divided by number of active members) decreased by -0.6%. Average annual compensation is considered the best indicator of salary growth. We believe that the low growth n the average annual compensation rate was due in part to the addition of numerous low-paid positions. The average annual compensation growth was lower than the expected salary increase rate assumption, yet with the Board's input on future increase projections, it was decided to maintain the salary increase assumption at 4.75%.
- Non-economic assumptions are the same as the prior valuation. The valuation does reflect a change in the interest rate credited to the annuity savings account from 4% to 2%.



JANUARY 1, 2006 VALUATION

	January 1, 2006	January 1, 2004	Percentage Change
Funding	•••••		
 Contribution for Fiscal 2007 	\$4,983,069		
 Contribution for Fiscal 2007 based on 			
January 1, 2004 valuation		\$4,790,848	4.0%
Members			
• Actives			
a. Number	660	613	7.7%
b. Annual Compensation	\$22,108,781	\$20,658,391	7.0%
c. Average Annual Compensation	\$33,498	\$33,700	-0.6%
d. Average Attained Age	45.0	45.4	-0.9%
e. Average Past Service	10.0	10.2	-2.0%
Retired, Disabled and Beneficiaries			
a. Number	365	369	-1.1%
b. Total Benefits*	\$5,574,557	\$4,894,305	13.9%
c. Average Benefits*	\$ 15,643	\$ 13,264	15.1%
d. Average Age	73.2	72.9	0.4%
• Inactives			
a. Number	102	41	148.8%
Normal Cost			
a. Total Normal Cost as of January 1, 2006	\$2,825,895	\$2,659,937	6.2%
b. Less Expected Members' Contributions	<u>1,865,112</u>	<u>1,697,638</u>	9.9%
c. Normal Cost to be funded by the Municipality	\$ 960,783	\$ 962,299	-0.2%
d. Adjustment to July 1, 2006	22,554	69,372	-67.5%
e. Administrative Expense Assumption	<u>150,000</u>	<u>138,000</u>	8.7%
f. Normal Cost Adjusted to July 1, 2006	\$1,133,337	\$1,169,671	-3.1%

^{*}Excluding State reimbursed COLA



SUMMARY OF JANUARY 1, 2006 VALUATION (Continued)

	January 1, 2006	January 1, 2004	Percentage Change
Actuarial Accrued Liability as of January 1, 2006			
a. Active Members	\$50,548,259	\$47,025,576	7.5%
b. Inactive Members	518,059	484,183	7.0%
c. Retired Members and Beneficiaries	50,893,057	45,049,023	13.0%
d. Total	\$101,959,375	\$92,558,782	10.2%
Unfunded Actuarial Accrued Liability			
a. Actuarial Accrued Liability as of January 1, 2006	\$101,959,375	\$92,558,782	10.2%
b Less Actuarial Value of Assets as of January 1, 2006	<u>75,143,128</u>	<u>62,213,772</u>	20.8%
c. Unfunded Actuarial Accrued Liability as of January 1, 2006	\$26,816,247	\$30,345,010	-11.6%
d. Adjustment to July 1, 2006	\$ <u>1,551,252</u>	\$ <u>1,481,503</u>	4.7%
e. Unfunded Actuarial Accrued Liability as of July 1, 2006	\$28,367,499	\$31,826,513	-10.9%



DEMOGRAPHIC INFORMATION

Members	January 1, 2006	Percentage Change
Actives		
a. Number	660	7.7%
b. Annual Compensation	\$22,108,781	7.0%
c. Average Annual Compensation	\$33,498	-0.6%
d. Average Attained Age	45.0	-0.9%
e. Average Past Service	10.0	-2.0%
Retired, Disabled and Beneficiaries		
a. Number	365	-1.1%
b. Total Annual Retirement Allowance excluding State-reimbursed COLA	\$5,574,557	13.9%
• Inactives		
a. Number	102	148.8%

- The data was supplied by the Leominster Retirement Board. The data was checked under broad parameters of reasonableness. With the assistance of the staff of the Leominster Retirement Board, we were able to develop a database sufficient for valuation purposes.
- Payroll increased by 7.0% over the course of the past two years. Average annual
 compensation decreased by -0.6% over the same time period. There was an increase in the
 number of active members during the same time period and a decrease in the number of
 retirees.
- The salary increase assumption includes general wage adjustments, step increases, and promotional increases. The two-year average annual compensation growth was lower than our 4.75% salary increase assumption; however, in consultation with the Board it was decided that the 4.75% salary increase assumption is a reasonable projection of future salary growth.



HISTORY OF ACTIVE PARTICIPANTS

Valuation Year	Number	Average Age	Average Past Service	Average Ann'l Compensation
2006	660	45.0	10.0	\$33,498
2004	613	45.4	10.2	\$33,700
2001	610	44.3	9.6	\$29,800
1998	561	44.7	10.2	\$27,190

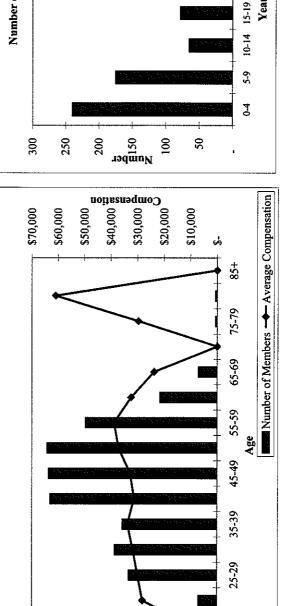
• Employee age has remained relatively constant. Average past service over the past four actuarial valuations is fairly consistent at 10 years. Average annual compensation has grown 23% from 1998 to 2006, with a slight decrease between the 2004 and 2006 actuarial valuation. The average annual increase over the course of the eight-year period has been 2.9%. The current active member population has increased significantly after remaining relatively stable since 2001.

The charts on the following pages summarize demographic information regarding active and retiree members.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM Distribution of Plan Members as of January 1, 2006 Active Members



AGE 0-4 Vears 5-9 Years 10-19 Vears 30-34 Years 30-34 Years 30-34 Years 30-34 Years 40-4 Vears 40-4 Vears<															Average
11 - - - - - - - 9,963 \$ 52 4 1 - - - - - - 12 337,698 -	AGE	0-4 Years	5-9 Years	10-14 Years	15-19 Year		Years 25-2	9 Years 30	1-34 Years 35	7-39 Years 4	0 + Years	Total	Total Comp	pensation	Compensation
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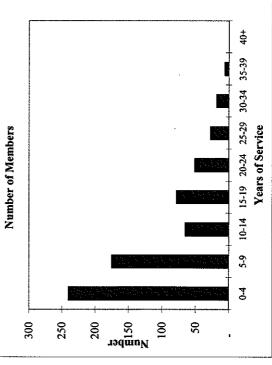


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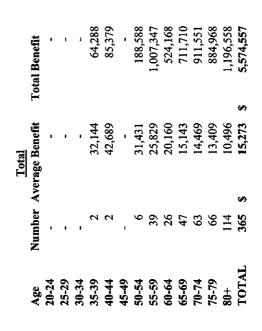
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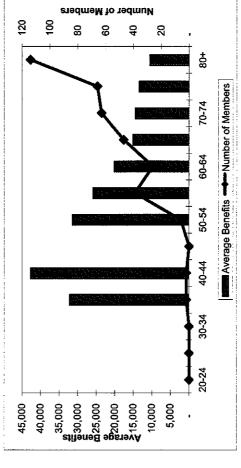
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LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM Distribution of Plan Members as of January 1, 2006 Retired Members



		Disabled Member			Retired M	Retired Members and Beneficiaries	<u>iciaries</u>	
Age	Number	Vumber Average Benefit	Total Benefit	Age	Number	Number Average Benefit	Total Benefit	
20-24	,	•	•	20-24	•	•	•	
25-29		•	ı	25-29	•	•	•	
30-34	ı	ı	•	30-34	ı	•	•	
35-39	1	30,237	30,237	35-39	1	34,051	34,051	
40 - 44	7	42,689	85,379	40-44	1	1	,	
45-49	,	•	1	45-49	1	t	ı	
50-54	4	32,146	128,584	50-54	2	30,002	60,004	
55-59	5	17,129	85,645	55-59	34	27,109	921,702	
60-64	9	23,086	138,516	60-64	20	19,283	385,653	
69-59	4	26,310	105,241	69-59	43	14,104	606,469	
70-74	7	20,532	143,727	70-74	99	13,711	767,824	
75-79	5	20,338	101,692	75-79	19	12,841	783,276	
÷08	7	16,421	114,950	+08	107	10,108	1,081,608	
TOTAL	41	\$ 22,780	\$ 933,970	TOTAL	324	\$ 14,323	\$ 4,640,587	





Benefits shown are net of State reimbursed COLA.



VALUATION METHODOLOGY

Stone Consulting, Inc. used the Entry Age Normal actuarial funding method in this actuarial valuation. The use of the Entry Age Normal actuarial funding method is consistent with the requirements of Chapter 32 of the Massachusetts General Laws.

NORMAL COST

	January 1, 2006	% of Payroll
Gross Normal Cost (GNC)	\$ 2,825,895	12.8%
Employees Contribution	1,865,112	<u>8.4%</u>
Net Normal Cost (NNC)	\$ 960,783	4.3%1
Adjusted to Beginning of Fiscal Year 2007	\$ 22,554	
Administrative Expense	\$ 150,000	0.7%
Adjusted Net Normal Cost With Admin. Expense	\$ 1,133,337	

- The gross normal cost (GNC) is the "price" of benefits accruing in the current year if the assumptions underlying the normal cost were realized.
- An individual normal cost represents that part of the cost of a member's future benefits that
 are assigned to the current year as if the costs are to remain level as a percentage of the
 member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability,
 and terminations) are included in this calculation.
- Anticipated employee contributions to be made during the year are subtracted from the GNC to determine employer normal cost, or net normal cost (NNC).
- Administrative expenses are added to the Net Normal Cost (NNC). Investment manager and custodial expenses are part of the interest assumption that is net of those expenses.

¹ rounding



ACTUARIAL ACCRUED LIABILITY AND FUNDED STATUS

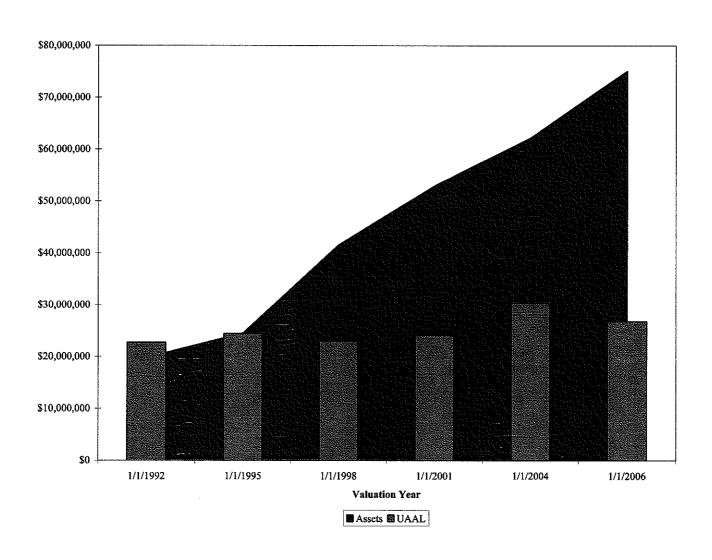
		January 1, 2006	Percentage Change
Active Actuarial Accrued Liability		\$ 50,548,259	7.5%
Superannuation	\$ 41,952,862		
Death	\$ 1,539,302		
Disability	\$ 5,501,012		
Termination	\$ 1,555,083		
Retiree, Inactive, Survivor and		51,411,116	12.9%
Beneficiary Actuarial Accrued			
Liability			
Retirees and Beneficiaries	\$ 41,942,214		
Disabled	\$ 8,950,843		
Inactive	\$ 518,059		
Total Actuarial Accrued Liability (AAL)		\$ 101,959,375	10.2%
Actuarial Value of Assets (AVA)		\$ 75,143,128	20.8%
Unfunded Actuarial Accrued Liability		\$ 26,816,247	-11.6%
Funded Ratio (AVA / AAL)			
2006:	73.7%		
2004:	67.2%		

- Actuarial Accrued Liability (AAL) is the "price" of benefits attributable to benefits earned in
 past years, or in other words, represents today's value of all benefits earned by active and
 inactive members.
- The total AAL is \$101,959,375. This along with an actuarial value of assets of \$75,143,128 produces a funded status of 73.7%. This compares to a funded status of 67.2% for the 2004 valuation.

The chart on the following page is a history of the unfunded actuarial accrued liability (UAL) and the valuation assets (AVA) over the course of the past six actuarial valuations.



HISTORY OF ACTUARIAL VALUATION OF ASSETS AND UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAL)





DEVELOPMENT OF FUNDING SCHEDULE

Adjusted Net Employer Normal Cost for Fiscal 2007	\$	1,133,337
Amortization	e	3,849,732
Total Appropriation required for Fiscal 2007	\$	4,983,069

- The funding schedule is composed of the normal cost, and the amortization of the actuarial accrued unfunded liability.
- The contribution amount for Fiscal 2007 is \$4,983,069. The funding schedule is presented on page 15. The schedule's length is nine years, two years shorter than the January 1, 2004 valuation schedule's length. The maximum funding schedule length allowed by Chapter 32 of the Massachusetts General Laws is to 2028.
- In developing the funding schedule, we used a fresh start approach in which the unfunded actuarial accrued liability is reamortized instead of maintaining the existing amortization amount and separately amortizing the actuarial gain. The use of a fresh-start approach results in a funding schedule in which the changes in contribution amounts from year to year are more consistent. The amortization is 2.5%, consistent with the January 1, 2004 Actuarial Valuation. The maximum permitted under Chapter 32 is 4.5%.
- The January 1, 2006 valuation results are being used beginning Fiscal 2007. This is an
 adjustment of six months from January 1, 2006 to July 1, 2006. In prior valuations the
 adjustment period has been eighteen months.

LEOMINSTER CONTRBUTORY RETIREMENT SYSTEM

FUNDING SCHEDULE

			Funding	
Fiscal	Normal	Unfunded	Amortization	Schedule
Year	Cost	Liability	of UAL	Contribution
2007	1,133,337	28,367,499	3,849,732	4,983,069
2008	1,187,171	26,479,188	3,945,975	5,133,146
2009	1,243,561	24,335,870	4,044,625	5,288,186
2010	1,302,630	21,914,545	4,145,740	5,448,371
2011	1,364,505	19,190,309	4,249,384	5,613,889
2012	1,429,319	16,136,199	4,355,618	5,784,938
2013	1,497,212	12,723,027	4,464,509	5,961,721
2014	1,568,329	8,919,200	4,576,122	6,144,451
2015	1,642,825	4,690,525	4,690,525	6,333,350
2016	1,720,859	-	-	1,720,859

Amortization of Unfunded Liability as of July 1, 2006

		Original Amort.	Percentage	Original #	Current Amort.	Years
Year	Туре	Amount	Increasing	of Years	Amount	Remaining
2007	Fresh Start	3,849,732	2.50%	9	3,849,732	9

Notes on Amortization of Unfunded Liability

Year is the year the amortization base was established.

Type is the reason for the creation of the base. Examples are Gain/(Loss) or Fresh Start.

Original Amortization Amount is the annual amortization amount when the base was established.

Percentage Increasing is the percentage that the Original Amortization Amount increases per year.

Original # of Years is the number of years over which the base is being amortized.

Current Amortization Amount is the amortization payment amount for this year.

Years Remaining is the number of years left to amortize the base.



ASSUMPTIONS AND METHODOLOGY SUMMARY

The principal actuarial assumptions used in this valuation are the same as the assumptions used in the previous valuation, except where noted, and are summarized in the following table:

Assumption

January 1, 2006 Valuation

Interest Rate

8.00%

(prior valuation: 8.00%)

Salary Increase

4.75%

(prior valuation 4.75%)

COLA

3% of \$12,000

COLA Frequency

Granted every year

Mortality

RP-2000 table. For members retired under an Accidental Disability (job-related), 40% of deaths are assumed to be from the same cause as the disability. Disabled mortality RP2000 table, ages set forward 7 years.

Overall Disability

Groups 1 and 2

45% ordinary disability 55% accidental disability

Group 4

10% ordinary disability 90% accidental disability

Retirement Rates

Groups 1 and 2

Ages 55 – 65

Group 4

Ages 50 - 65

Administrative Expense

\$150,000 budget estimated for FY 2007

provided by Leominster Retirement Board.



ASSETS

a.	Cash	\$	2,212.80
b.	Short Term Investments	•	375,595.60
c.	Pooled Domestic Equity Funds		3,655,443.99
d.	Pooled International Equity Funds		10,003,125.04
e.	Pooled Global Equity Funds		33,721,005.74
f.	Pooled Domestic Fixed Income Funds		23,358,797.35
g.	Pooled Alternative Investments		3,865,529.82
h.	PRIT Cash		161,297.62
i.	Sub-Total:	\$	75,143,007.96
j.	Interest Due and Accrued	\$	120.45
k.	Accounts Receivable		-
1.	Accounts Payable		-
m.	Sub-Total:	\$	120.45
n.	Market Value of Assets [(g) + (m)]	\$	75,143,128.41

- We were furnished with the System's annual report by the Board. The market value of assets as of December 31, 2006 (adjusted for interest due and accrued, payables and receivables) is \$75,143,128.41.
- The asset allocation is approximately 32% cash, receivables, short-term investments and fixed income, 5% pooled domestic equities, 13% pooled international equities, 45% pooled global equities, and 5% pooled alternative investments.
- Historically, 10 to 11% has been the expected long-term rate of return for equities, and 6% to 7% has been the expected long-term rate of return for fixed income securities. Many economists and investment professionals are projecting lower returns of 6.25% to 9.00% for equities and 4.50% to 6.50% for fixed income securities. In light of these projections, and the historical range of returns, the 8.00% interest rate assumption is within the reasonable assumption range. We encourage close monitoring for changes in investment performance against expectations.



DISCLOSURE INFORMATION UNDER GASB STATEMENT 25

SCHEDULE OF FUNDING PROGRESS

(Dollars In Thousands)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
	A	В	B-A	A/B	C	(B-A)/C
1/1/2006	\$75,143	\$101,959	\$26,816	74%	\$22,109	121%
1/1/2004	\$62,214	\$92,559	\$30,345	67%	\$20,658	147%

NOTES TO SCHEDULES

Additional information as of the latest actuarial valuation follows:

Valuation date

1/1/2006

Actuarial cost method

Entry Age Normal

Amortization method

Approximate level percent of payroll

Closed

Remaining amortization period

9 years

Asset valuation method

Market value of assets adjusted by payables and

receivables.

Actuarial assumptions:

Investment Rate of Return

8.00% per year

Projected Salary Increases

4.75% per year



PERAC INFORMATION DISCLOSURE

8.4% of payroll The most recent actuarial valuation of the System was prepared by Stone Consulting, Inc. as of January 1, 2006 \$1,865,112

\$960,783 The normal cost for employees on that date was: The normal cost for the employer was:

4.3% of payroll

\$50,548,259

51,411,116

\$101,959,375 75,143,128 \$26,816,247

ne notitial cost for the employer was.

The actuarial liability for active members was: The actuarial liability for retired members was (includes inactives):

Total actuarial accrued liability:

System assets as of that date: Unfunded actuarial accrued liability: The ratio of system's assets to total actuarial liability was:

74%

\$22,108,781

As of that date the total covered employee payroll was: The principal actuarial assumptions used in the valuation are as

ı ne principai actuariai assumpi follows: 8.00% per annum

Investment Return:

Rate of Salary Increase: 4.75% per annum

SCHEDULE OF FUNDING PROGRESS (Dollars in \$000's)

I A Copus	UAAL)	(b-a)	\$26,816	\$30,345	\$24,112
A chiotical A company	Liability (AAL)	(b)	\$101,959	\$92,559	\$77,053
Actuarial	Assets	(a)	\$75,143	\$62,214	\$52,941
	Actuarial Valuation	Date	1/1/2006	1/1/2004	1/1/2001

UAAL as a % of Covered Payroll

Covered

Funded Ratio (a/b) 74% 67% 69%

Payroll

<u>ම</u>

((b-a)/c) 121% 147% 133%

\$22,109

\$20,658 \$18,178

ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Methods

1. Actuarial Cost Method

The Entry Age Normal Actuarial Cost Method has been used in this valuation. Under this method, the normal cost is the amount calculated as the level percentage of compensation necessary to fully fund the prospective benefits from each member's entry age to retirement age.

The actuarial accrued liability represents the theoretical accumulation of all prior years' normal costs for the plan members as if the program had always been in effect. The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over plan assets.

2. Asset Valuation Method

Market value of assets (adjusted by payables and receivables).

3. Fiscal Year Adjustment

The actuarial results are adjusted by the valuation interest rate and salary scale to the beginning of Fiscal Year 2007. The unfunded actuarial accrued liability is rolled forward with normal cost and further adjusted by anticipated contributions and interest.

Actuarial Assumptions

1. Investment Return

8.00% per year net of investment expenses (no change).

2. Salary Increases

4.75% per year (no change).



ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

3. Withdrawal Prior to Retirement

The rates shown at the following sample ages illustrate the withdrawal assumption.

	Rate of Withdrawal		
Age	Group 1 and 2	Group 4	
20	37.51%	3.15%	
25	28.23	2.85	
30	17.35	2.48	
35	10.07	1.88	
40	7.21	0.84	
45	5.68	0.06	
50	4.57	0.00	
55	0.00	0.00	

4. Disability Prior to Retirement

The rates shown at the following sample ages illustrate the assumption regarding the incidence of disability:

	Rate of Disability		
Age	Group 1 and 2	Group 4	
20	0.03%	0.10%	
25	0.04%	0.12	
30	0.06%	0.18	
35	0.08%	0.26	
40	0.12%	0.38	
45	0.18%	0.58	
50	0.31%	0.98	
55	0.50%	1.60	
60	0.61%	2.06	

Disability is assumed to be 45% ordinary and 55% accidental for Group 1 and 2 and 10% ordinary and 90% accidental for Group 4.



ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

5. Rates of Retirement

The rates shown at the following ages illustrate the assumption regarding the incidence of retirement, once the member has achieved 10 years of service:

	Rates of	
	Retirement	
Age	Group 1 and 2	Group 4
50	N/A	2%
51	N/A	2%
52	N/A	2%
53	N/A	2%
54	N/A	2%
55	10%	5%
56	3%	5%
57	3%	5%
58	3%	5%
59	5%	5%
60	5%	10%
61	5%	10%
62	10%	20%
63	10%	20%
64	10%	20%
65	100%	100%

6. Mortality

The RP-2000 mortality table for healthy annuitants (sex-distinct).

7. Disabled Life Mortality

The RP-2000 mortality table for healthy annuitants (sexdistinct) set-forward by 7 years. Death is assumed to be due to the same cause as the disability 40% of the time.

8. Regular Interest Rate Credited to Annuity Savings Account

2% per year.



ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

9.	Family Composition	Members assumed married with 2 dependent children – one male and one female both age 15; age difference between member and spouse assumed to be 3 years (the male being the older).
10.	Cost-of-Living Increases	A 3% COLA on the first \$12,000 of a member's retirement allowance is assumed to be granted every year.
11.	Administrative Expenses	Estimated budgeted amount of \$150,000 for the Fiscal Year 2007 excluding investment management fees and custodial fee is added to the Normal Cost.
12.	Step Increases	Step increases are assumed to be part of the salary increase assumption.
13.	Credited Service	Service between date of hire and date of membership is assumed to be purchased by all members.
14.	Contribution Timing	Contributions are assumed to be at the beginning of the fiscal year (July 1).
15.	Valuation Date	January 1, 2006.

SUMMARY OF PRINCIPAL PROVISIONS

1. Participant

Participation is mandatory for all full-time employees whose employment commences before age 65. There are three classes of members in the retirement system:

Group 1: general employees

Group 2: employees in specified hazardous occupations (e.g., electricians)

Group 4: police and firefighters

2. Member Contributions

Member contributions vary depending upon date hired as follows:

Member Contribution Rate
5% of Pay
7% of Pay
8% of Pay
9% of Pay

Members hired after 1978 contribute an additional 2% of pay over \$30,000.

- 3. Pay
 - a. Pay

Gross regular compensation excluding bonuses, overtime, severance pay, unused sick pay, and other similar compensation.

b. Average Pay

The average of pay during the 3 consecutive years that produce the highest average or, if greater, during the last three years (whether or not consecutive) preceding retirement.

4. Credited Service

Period during which an employee contributes to the retirement system plus certain periods of military service and "purchased" service.



SUMMARY OF PRINCIPAL PROVISIONS (Continued)

5. Service Retirement

a. Eligibility

Completion of 20 years of credited service or attainment of age 55 and completion of 10 years of credited service. If hired prior to 1978 or a member of group 4, attainment of age 55.

b. Retirement Allowance

Determined as the product of the member's benefit percentage, average pay and credited service, where the benefit percentage is shown below (maximum allowance of 80% of average pay):

Benefit Percentage	Group 1	Group 2	Group 4
2.5%	65+	60+	55+
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	N/A	49
1.8	58	N/A	48
1.7	57	N/A	47
1.6	56	N/A	46
1.5	55	N/A	45

In addition, veterans receive an additional \$15 per year for each year of credited service up to 20 years.

6. Deferred Vested Retirement

a. Eligibility

Completion of 10 years of credited service (for elected and appointed members, 6 years in the event of involuntary termination).



SUMMARY OF PRINCIPAL PROVISIONS (Continued)

b. Retirement Allowance

Determined in the same manner as 5b. with the benefit payable at age 55, unless deferred until later at the member's option.

Member contributions with interest may be withdrawn after separation from service. If contributions are withdrawn, eligibility for retirement benefits is forfeited. Members hired before 1984 receive full interest on contributions that are withdrawn; otherwise, one half the credited interest is provided for members who withdraw after 5 but before 10 years of credited service and no interest is provided for withdrawals before 5 years of credited service.

7. Ordinary Disability Retirement

a. Eligibility

Non-job related disability after completion of 10 years of credited service.

b. Retirement Allowance

Determined in the same manner as 5b. with the benefit payable immediately. Veterans receive 50% of pay (during final year) plus an annuity based on accumulated member contributions with interest.

8. Accidental Disability Retirement

a. Eligibility

Disabled as a result of an accident in the performance of duties. No age or service requirement.

b. Retirement Allowance

72% of pay plus an annuity based on accumulated member contributions with interest. Also, a dependent's allowance per year for each child. Total allowance not to exceed 100% of pay (75% for members hired after 1987).



SUMMARY OF PRINCIPAL PROVISIONS (Continued)

9. Non-Occupational Death

a. Eligibility

Dies while in active service, but not due to occupational injury. 2 years of service.

b. Retirement Allowance

Benefit as if Option C had been elected (see below). Minimum monthly benefits provided as follows: spouse - \$250, first child - \$120, each additional child - \$90.

10. Occupational Death

a. Eligibility

Dies as a result of an occupational injury.

b. Benefit Amount

Same as 8b.

11. Cost-of-Living Increases

An increase of up to 3% applied to the first \$12,000 of annual benefit. Funded by the Municipality from Fiscal Year 1999. Percentage increase is voted on each year by the Retirement Board. Cost-of-living increases granted during Fiscal Year 1982 through Fiscal 1998 are reimbursed by the Commonwealth.

12. Optional Forms of Payment

a. Option A

Allowance payable monthly for the life of the member.

b. Option B

Allowance payable monthly for the life of the member with a guarantee of remaining member contributions

with interest.

c. Option C

Allowance payable monthly for the life of the member with 66-2/3% continuing to the member's beneficiary upon the member's death. If the beneficiary predeceases the member, the allowance amount "pops

up" to the non-reduced amount.



GLOSSARY OF TERMS

1.	Present Value of Benefits	Represents the dollar value today of all benefits expected to be earned by current members if all actuarial assumptions are exactly realized.
2.	Actuarial Cost Method	The procedure that is used to allocate the present value of benefits between the liability that is attributable to past service (Actuarial Accrued Liability) and that attributable to future service.
3.	Actuarial Assumptions	Estimates are made as to the occurrence of certain events that determine the level of benefits to be paid and how long they will be provided. The more important actuarial assumptions include the investment return on assets, salary increases and the rates of turnover, disability, retirement and mortality.
4.	Actuarial Accrued Liability	The portion of the Present Value of Benefits that is attributable to past service.
5.	Normal Cost	The portion of the Present Value of Benefits that is attributable to benefits to be earned in the coming year.
6.	Actuarial Assets	Market value of assets of the funds, adjusted by payables and receivables, set aside through employer and member contributions to provide for benefits.
7.	<u>Unfunded Actuarial Accrued</u> <u>Liability</u>	That portion of the Actuarial Accrued Liability not covered by System Assets.
8.	<u>PERAC</u>	Public Employee Retirement Administration Commission, a division of the State government which has regulatory authority over the administration of the retirement system.
9.	PRIT	Pension Reserves Investment Trust Fund is the state controlled and administered fund for the investment of assets for members of the retirement system.
10.	<u>GASB</u>	Government Accounting Standards Board (issues guidance for disclosure of retirement system liabilities).